

Conference Abstract

Otobur in Action: Processing of various biodiversity data for botanical gardens; flowering calendar, herbarium digitization, propagation trials and scientific plant names

Rasim Murat Aydinkel[‡], Salih Sercan Kanoğlu[‡]

[‡] Nezahat Gökyigit Botanik Bahçesi, İstanbul, Turkey

Corresponding author: Rasim Murat Aydinkel (a.rasimmurat@ngbb.org.tr),
Salih Sercan Kanoğlu (salih@ngbb.org.tr)

Received: 10 Jun 2019 | Published: 13 Jun 2019

Citation: Aydinkel R, Kanoğlu S (2019) Otobur in Action: Processing of various biodiversity data for botanical gardens; flowering calendar, herbarium digitization, propagation trials and scientific plant names. Biodiversity Information Science and Standards 3: e37043. <https://doi.org/10.3897/biss.3.37043>

Abstract

Over the past decade, great improvements have occurred in the field of biodiversity information technology. Data types such as geographic and phenological (e.g., blooming) characteristics of different specimens, which are used for the analysis of environmental issues, are steadily increasing on a large scale. Most herbaria and botanic gardens are involved in the digital compilations of such kinds of data to be able to transform them into meaningful results that can be used to tackle environmental problems (Leadlay and Greene 1998). These are usually in the form of high resolution images, along with tables displaying additional information about specimens, which are accessible over the internet.

This study, will describe how we made an annual estimate of phenological data, constructing a flowering calendar of plants (Fig. 1) in the Nezahat Gökyigit Botanik Bahçesi (NGBB), using Otobur (Loizeau et al. 2018). Otobur is a data management system developed under NGBB in Istanbul, which is accessible at <https://www.otobur.org.tr>. In addition to this, we also analyze our recorded data on the ongoing propagation effort of seedlings, in order to analyze and compare their prior germination success and mortality

ratios (Fig. 2). This enables us to improve our procedures, and to find the most suitable techniques to apply in the most accurate propagation trials.

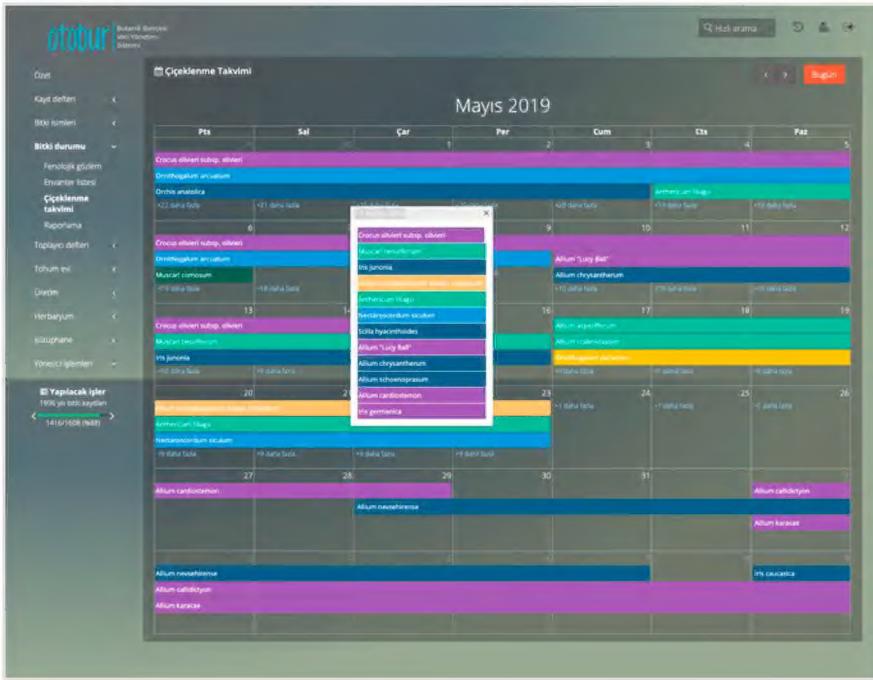


Figure 1.
Display of the flowering calendar of Otobur.

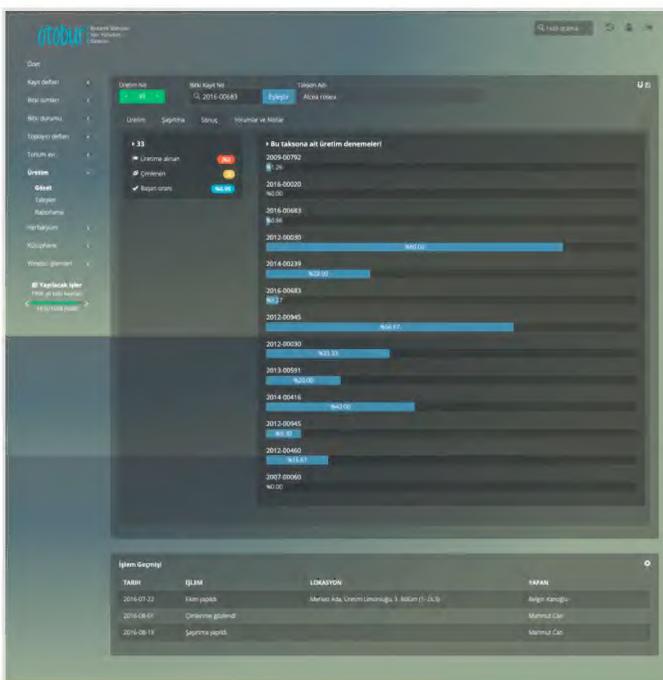


Figure 2.
Propagation approach comparison screen.

Keywords

Otobur, botanic garden, data management, phenology, propagation, specimen data

Presenting author

Rasim Murat Aydinkel

Presented at

Biodiversity_Next 2019

Author contributions

S.S. Kanoglu conceived the idea of Otobur; R.M. Aydinkel designed the interface, implemented the application, constructed the database; S.S. Kanoglu supervised the Otobur project and wrote the abstract.

Conflicts of interest

There is no conflict of interest.

References

- Leadlay E, Greene J (Eds) (1998) The Darwin technical manual for botanic gardens. Botanic Gardens Conservation International, London. [ISBN 0952027569]
- Loizeau P, Price M, Maeder A, Smith P, Sharrock S (2018) 6Th Global Botanic Gardens Congress - 6E Congrès Mondial Des Jardins Botaniques - Abstracts - Résumés. Zenodo 40. <https://doi.org/10.5281/ZENODO.1162801>